

NOTES ON MESOAMERICAN BEGONIA

Kathleen Burt-Utley

Department of Biological Sciences
University of New Orleans
New Orleans, Louisiana 70148

During a study of Begonia section Gireoudia (Kl.) A.DC. (Burt-Utley, 1981) and ongoing revisionary and floristic work with Mesoamerican Begonia, new taxa have been discovered and others reinterpreted. One new species, B. molinana, is described herein and two widely ranging Central American taxa, B. hirsuta Aubl. and B. sericoneura Liebm., are discussed.

BEGONIA MOLINANA Burt-Utley, sp. nov. (Fig. 1)

Herbae suffrutescentes internodia glanduloso-villosa. Laminae obliquae vel transversae supra et subtus glanduloso-hirsutae; 7-8 palmatinerves. Florum ♂ sepala 2 petala 2 stamina 37 monodelpha. Florum ♀ sepala 2 petala 1 stigmata 3 bicornuta.

Suffrutescent herb to 1.5 m; STEMS with internodes 1.6-4 cm X 3.5-6mm, glandular-villous with frequently glandular-tipped trichomes 0.5-1.5 mm long intermixed with minute glandular trichomes. LEAF BLADES chartaceous to subcoriaceous, oblique to transverse, asymmetrically ovate, 20-25 X 11.2-15 cm, basally cordate, apically acuminate, marginally irregularly shallowly lobed at ends of major nerves, ciliate-denticulate and dentate; glandular-hirsute above and beneath with trichomes 0.2-0.9 mm long; 7-8-palmately nerved. PETIOLES 12-17 cm X 2.5-3.5 mm, villous with trichomes similar in size and form to internodal trichomes. STIPULES caducous, narrowly ovate, 2.3 X 0.9-1.1 cm, weakly keeled, apically obtuse, marginally entire, glabrous. INFLORESCENCES axillary, shorter than the foliage, regularly cymose. PEDUNCLES 12-18.5 cm X 1-9 mm, sparsely glandular-villous, but glabrate with age. BRACTS caducous, the lowermost not seen. FLOWERS ♂: sepals 2, ovate, larger than 9 X 8 mm, externally glabrous; petals 2, narrowly obovate or elliptic, larger than 4 x 3 mm; stamens about 37, monadelphous, anthers narrowly obovate to oblong. FLOWERS ♀: bracteoles wanting; sepals 2, broadly ovate, larger than 7 x 7 mm, glabrous; petals 1, obovate to elliptic, larger than 3 x 2 mm; ovary densely glandular, trilocular with bipartite placentae; styles 3, stigmas bicornute. CAPSULES not seen.

TYPE: HONDURAS: OCOTEPEQUE: cloud forest El Portillo on Cordillera Merendón, 20 km from Nueva Ocotepeque, 1800 m, 28 Aug 1968. Molina 22356 (HOLOTYPE: F; ISOTYPE: NY).

Begonia molinana is readily distinguished from other Begonia species occurring in Honduras by its suffrutescent habit coupled with its glandular-villous internodes, hirsute leaf blades, regularly cymose inflorescences and ebracteolate pistillate

flowers with two sepals and a petal.

Further collections of Begonia molinana are necessary before morphometric aspects of floral morphology and sectional affiliation can be unequivocally established. Although B. molinana can not be placed in a section with certainty, its pistillate and staminate flowers with one or two petals respectively suggest an affinity with either section Knesebeckia (Kl.) A.DC. or section Gireoudia (Kl.) A.DC. Supporting its placement in sect. Knesebeckia are its immature staminate flowers with apparently monadelphous stamens, a character associated with sect. Knesebeckia, but otherwise uncommon among Middle American taxa. Since flowers of some species in section Gireoudia occasionally bear petals, relationship with section Gireoudia must be considered until it can be determined that flowers of B. molinana characteristically have two perianth series. While stamens of species in this latter section are typically borne on a low torus and have been described as submonadelphous (Candolle, 1864) monadelphous is observed in at least one species, B. quaternata Smith & Schubert from Panama.

BEGONIA HIRSUTA Aubl., Hist. pl. Guian. 2: 913, t. 348. 1775.

Begonia hygrophila C.DC., Bull. Soc. Bot. Belg. 35: 265. 1896.

Begonia hygrophila var. puberula C.DC., Bull. Soc. Bot. Belg. 35: 266. 1896.

Begonia mameiana C.DC., Smithson. Misc. Coll. 69: 4. 1919.

Begonia leptopoda C.DC., Smithson. Misc. Coll. 69: 6. 1919.

Begonia chepoensis C.DC., Smithson. Misc. Coll. 69: 8. 1919.

Aublet described Begonia hirsuta from material he collected in Cayenne, French Guiana. Although the Aublet specimen at British Museum lacks capsules, Aublet's illustration coupled with information from the type material leaves little doubt that the taxon recognized by Smith and Schubert (1946, 1958) as B. filipes Benth. is conspecific with B. hirsuta. Capsules depicted in the illustration closely conform to those observed on specimens treated as B. filipes from Central and South America, but differ from those of other species in section Doratometra (Kl.) A.DC. in their larger dorsal wings. Central American taxa placed in synonymy with B. filipes (Smith and Schubert 1946, 1958) are conspecific with B. hirsuta. Attempts to locate the type of B. filipes to determine if it also should be synonymized with B. hirsuta have thus far been unsuccessful. However, based on Bentham's description of B. filipes capsules (Bentham, 1845) and collections of B. hirsuta from the type locality of B. filipes, it seems likely that the taxa are conspecific.

BEGONIA SERICONEURA Liebm., Vidensk. Meddl. Dansk. Naturhist. Foren. Kjøbenhavn 1852: 13.

Gireoudia sericoneura (Liebm.) Kl., Abh. Königl. Akad. Wiss. Berlin 1854: 209. 1855.

Gireoudia fibrillosa Kl., Abh. Königl. Akad. Wiss. Berlin 1854. 206. 1855.

Gireoudia pilifera Kl., Abh. Königl. Akad. Wiss. Berlin 1854: 206. 1855.

Begonia pilifera (Kl.) A.DC., Prodr. 15(1): 337. 1864.

Begonia biolleyi C.DC., Bull. Soc. Bot. Belg. 35(1): 263. 1896.

Begonia nicaraguensis Standl., Field Mus. Nat. Hist. Bot. Ser. 4: 237. 1929.

Begonia hypolipara Sandwith, Kew Bulletin 1931: 99.

Begonia sericoneura formed the major element in B. lindleyana Walp. as circumscribed by Smith and Schubert (1946, 1961), a species to which it bears no apparent relationship. It can be distinguished from this latter taxon by vegetative characters alone. In both its rhizomatous habit and basally cordate leaves B. sericoneura differs markedly from B. lindleyana which is characterized by its suffrutescent habit and peltate leaves. Flora characters also conclusively establish that B. sericoneura is distinct from B. lindleyana. The bracteolate pistillate flowers with three stigmas observed on B. sericoneura are a marked contrast to the ebracteolate flowers with four stigmas found on B. lindleyana. With the exception of B. cardiocarpa Liebm. and B. sarcophylla Liebm., the remaining taxa Smith and Schubert (1946, 1961) included in B. sarcophylla belong in B. sericoneura. Begonia cardiocarpa is a distinct species closely allied with B. manicata Brongn. ex Cels and B. sarcophylla should be considered a synonym of B. sartorii Liebm. (Burt-Utley, 1981).

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Figure 1. Begonia molinana Burt-Utley. A. Habit. B. Staminate flower. C. Pistillate flower. (from Molina 22356).

